

Monitoring Data Record

Project Title: R-2206B (NC 16 Bypass) COE Action ID: 200431320
 Stream Name: UT to Forney Creek (Site 10B) WQC Number: 3476
 City, County and other Location Information: Lincoln County, NC 16 Bypass
 (Sta. 159+00 LT.-L-)

Date Construction Completed: 3-3-08 Monitoring Year: (1) of 5
 Ecoregion: _____ 8 digit HUC unit 03050101
 USGS Quad Name and Coordinates: _____

Rosgen Classification: C5

Length of Project: 463' Urban or Rural: Rural Watershed Size: _____
 Monitoring DATA collected by: M. Green and J. Young Date: 9/3/08

Applicant Information:

Name: NCDOT – Roadside Environmental Unit
 Address: 1425 Rock Quarry Rd, Raleigh, NC 27610
 Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us

Consultant Information:

Name: _____
 Address: _____
 Telephone Number: _____ Email address: _____

Project Status: _____

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level 1

Permit States: The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period: Reference photos; plant survival (i.e. identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action); visual inspection of channel stability. Physical measurements of channel stability/morphology will be conducted during Years 1, 3, and 5. The permittee shall submit the monitoring reports to the USACE, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the five-year monitoring period, the USACE, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

 Section 1. PHOTO REFERENCE SITES

(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 10 photos were taken from 5 photo point locations looking up and down stream.

Dates reference photos have been taken at this site: 3-3-08, 9/3/08

Individual from whom additional photos can be obtained (name, address, phone): _____

Other Information relative to site photo reference: A site map with photo point locations is included with this report.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL

Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

There is some planted vegetation that is missing due to repair work that took place on the stream relocation.

Estimated causes, and proposed/required remedial action: The repair work area will be replanted in the winter of 2009.

ADDITIONAL COMMENTS: Streambank reforestation consisted of black willow and silky dogwood live stakes planted along the streambank. The floodplain was planted with overcup oak, sycamore, green ash, and river birch bareroot seedlings. Other vegetation noted included fennel, *Juncus* sp., goldenrod, tag alder, lespedeza, red maple, silverthorn, *Scirpus* sp., briars, and various grasses.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

UT to Forney Creek has some localized bank erosion behind the left arm of a crossvane at Photo Point #5 (Upstream). The crossvane at Photo Point #5 (Downstream) has water piping under the header rock. The right arm of this crossvane has dropped off into the channel, however, only a portion of the right arm actually fell into the channel. The remaining portion of the channel is in stable condition for Year 1 Summer evaluation. A bankfull event has occurred since the last monitoring evaluation. Repair work did take place at the stream relocation in October 2008 to repair the problem areas.

Date 9/3/08	Sta. 159+50 PP#5 (Upstream)	Sta. 159+40 PP#5 (Downstream)	Station Number	Station Number	Station Number
Structure Type	Crossvane	Crossvane			
Is water piping through or around structure?		Water is piping under the crossvane			
Head cut or down cut present?		Headcut			
Bank or scour erosion present?	Minor erosion behind left arm of crossvane	Minor erosion on the right end of the cross vane			
Other problems noted?		A portion of the right arm of the crossvane has dropped off into the channel			

UT Forney Creek



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream)



Photo Point #3 (Downstream)

Year 1 Summer – September 2008

UT Forney Creek



Photo Point #4 (Upstream)



Photo Point #4 (Downstream)



Photo Point #5 (Upstream)



Photo Point #5 (Downstream)

UT Forney Creek
R-2206B
Lincoln County

